

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**MASS ENGINEERED DESIGN, INC. and  
JERRY MOSCOVITCH**

## Plaintiffs

**VS.**

**ERGOTRON, INC., DELL INC., CDW CORPORATION, and TECH DATA CORPORATION**

## Defendants

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**CASE NO. 206 CV 272**  
**PATENT CASE**

## MEMORANDUM OPINION AND ORDER

Before the Court is Dell Inc.’s Motion for Summary Judgment for Failure to Comply with 35 U.S.C. § 112, ¶ 2 (Indefiniteness) (Docket No. 137) and the claim construction of the disputed terms in U.S. Patent Nos. RE 36,978 (the “978 patent”) and 5,673,170 (the “170 patent”). For the reasons stated in the “Angled toward each other to a desired degree & Angles relative to each other to a desired degree” constructions, the Court **DENIES** Dell’s Motion for Summary Judgment (Docket No. 137).

## BACKGROUND

The patents in suit involve the mounting of multiple displays to increase a computer user's potential viewing area. Both patents' technologies focus on expanding the potential viewing area while minimizing the impediment to the user's desk space. The patents teach various ways to mount multiple displays so the user may conveniently position them during use.

MASS Engineered Design Inc. and Jerry Moscovitch (collectively “MASS”) contend that Ergotron, Inc., Dell Inc., CDW Corporation, and Tech Data Corporation (collectively “Defendants”)

infringe the '978 patent.

Dell Marketing L.P. and Dell Inc. (collectively "Dell") contend that MASS infringes the '170 patent.

### APPLICABLE LAW

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). In claim construction, courts examine the patent's intrinsic evidence to define the patented invention's scope. *See id.*; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). This intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term's context in the asserted claim can be very instructive. *Id.* Other asserted or unasserted claims can also aid in determining the claim's meaning because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term's meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficoso N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor’s lexicography governs. *Id.* Also, the specification may resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex, Inc.*, 299 F.3d at 1325. But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc., v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent.”).

Although extrinsic evidence can be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but

technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition is entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

The patents in suit also contain means-plus-function limitations that require construction. Where a claim limitation is expressed in "means plus function" language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112, ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, 35 U.S.C. § 112, ¶ 6 mandates that "such a claim limitation 'be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.'" *Id.* (citing 35 U.S.C. § 112, ¶ 6). Accordingly, when faced with means-plus-function limitations, courts "must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations]." *Id.*

Construing a means-plus-function limitation involves multiple inquiries. "The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Id.* A "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id.* Moreover, the focus of the "corresponding structure" inquiry is not merely whether a structure is

capable of performing the recited function, but rather whether the corresponding structure is “clearly linked or associated with the [recited] function.” *Id.*

**ANALYSIS<sup>1</sup>**  
**U.S. Patent No. RE 36,978**

*Base member*

The Court construes “base member” as the “lowermost portion of the system that supports the arm assembly above a surface.” Both parties agree that the term’s plain and ordinary meaning applies, but they disagree as to what that plain and ordinary meaning is.

Defendants proposed construction is “the portion of the display system that provides support for the display system from a surface.” Defendants proposed construction is overly broad and fails to give meaning to the term “base.” Even though Defendants agree that the plain and ordinary meaning applies, they fail to account for that meaning in their construction. *See Philips*, 415 F.3d at 1312–13 (words of a claim should generally be given their plain and ordinary meaning).

MASS proposes that “base member” means “the lowermost portion of the system for resting on a work surface and that supports the arm assembly above the work surface.” MASS relies on both intrinsic and extrinsic evidence for its construction. MASS claims the prosecution history limits the base to “resting on a work surface.” *See* MASS’s Opening Brief, Ex. C. During prosecution, the inventor stated, “this [base] is used to support the arm assembly above a work surface.” *Id.* However, the prosecution history does not reference where the base must rest; thus, MASS’s construction is incorrect in limiting base to “resting on a work surface.”

MASS’s limit of “lowermost portion” incorporates “base’s” plain and ordinary meaning. The dictionary defines “base” as “**1 a** (1): the lower part of a wall, pier, or column considered as a

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<sup>1</sup>Appendix A contains the relevant claims with the disputed terms in bold.

separate architectural feature (2): the lower part of a complete architectural design **b**: the bottom of something considered as its support.” MASS’s Opening Brief, Ex. E (emphasis in original). When the base component is illustrated, the base component is shown as the lowermost portion of the system. *See* ‘978 patent, Figs. 1–6 (showing base 12 as the lowermost portion); 12–16 (showing base 102 as the lowermost portion); 17–18 (showing base 156 as the lowermost portion). As one of ordinary skill in the art would understand that the “base” is the lower or lowermost part of the structure, that limitation must be included. Both parties agree that the base is used to support the system. Accordingly, the Court construes “base member” as “the lowermost portion of the system that supports the arm assembly above a surface.”

#### Electronic displays

At the *Markman*, the parties agreed that “electronic displays” should be construed as “electronic devices that represent information in visual form.” The Court adopts their construction.

#### Positioning means for positioning displays

The Court construes the phrase as “apparatus used to position the displays.” The parties dispute whether the phrase is governed by Section 112, ¶ 6.

“While the use of the word ‘means’ gives rise to a presumption that §112, paragraph 6 applies, the presumption is overcome by the recitation of the structure needed to perform the recited function.” *TI Group Auto. Sys. (N. Am.), Inc. v. VDO N. Am., L.L.C.*, 375 F.3d 1126, 1135 (Fed. Cir. 2004). Defendants contend that the claim language lacks sufficient structure to overcome this presumption as the purported structure includes additional means-plus-function limitations.

The claim language recites sufficient structure.<sup>2</sup> The claim states “positioning means for . . . comprising:” an arm assembly, “support means . . .,” “mounting means. . .,” and “means for

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<sup>2</sup> Positioning means is used in both claim 16 and 17. This analysis applies with equal weight to both claims.

adjusting. . . .” ‘978 patent, Col. 11:10–12:2. Although the recited structure includes means-plus-function limitations, there is sufficient structure in the claim language such that Section 112, ¶ 6 does not apply. *British Tel. PLC v. Prodigy Commc’n Corp.*, 189 F. Supp. 2d 101, 110 (S.D.N.Y. 2002); *see also Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1359–60 (Fed. Cir. 2004) (“we have held that it is sufficient if the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure, even if the term covers a broad class of structures and even if the term identifies the structures by their function”). Here, the structure is identified by both specific components (e.g. arm assembly) and functions (e.g. mounting means for mounting and supporting means for supporting). “The structure of the component parts is present—it is just found in a different part of the patent, in the specification, rather than in the claim language.” *British Tel. PLC*, 189 F. Supp. 2d at 110. Accordingly, the term is not a means-plus-function limitation.

One of ordinary skill in the art would understand “positioning means” as an “apparatus used to position displays.” Therefore, the Court construes the term accordingly.

#### Arm assembly

The Court construes “arm assembly” as “a structure having one or more constituent parts connected to and projecting from the support means.” At the hearing, the parties identified that the main dispute was whether “assembly” required a minimum of one or two constituent parts.

Defendants contend that the plain and ordinary meaning of “assembly” requires two or more parts. However, such a construction would contradict unasserted dependent claim 6, which states “an arm assembly is an elongate telescopic member.” ‘978 patent, Col. 9:25; *see Phillips*, 415 F.3d at 1314 (unasserted claims can help determine the meaning of a term as claim terms are usually used consistently). Claim 6 clearly defines that an arm assembly may be made up of one part, “an elongate telescopic member.”

The written description further supports a minimum of one constituent part. The Abstract refers to a particular embodiment where the arm assembly is “a single telescopic member.” ‘978 patent, Abstract. The Summary of the Invention also states “an arm assembly which supports the displays and which may comprise a single rotary arm, a pair of arms rotating about separate axes, a single arm locatable in two desired orientation [*sic*] or interchangeable arms of different length.” *Id.*, Col. 1:30–34. Accordingly, the arm assembly does not require two parts. Therefore, the Court construes “arm assembly” as “a structure having one or more constituent parts connected to and projecting from the support means.”

*Support means for supporting & Support means having a base for supporting*

Claims 16 and 17 contain the terms “support means for supporting the arm assembly from the base member” and “support means having a base for supporting the arm assembly above a support surface,” respectively. The parties agree that the terms are means-plus-function limitations governed by 35 U.S.C. § 112 ¶ 6.

The parties agree that the function should be the same for both terms, but the parties disagree on what the function is. Defendants propose that the function should be “‘supporting the arm assembly from the base member,’ meaning the structure allows the electronic displays to be selectively positioned in a vertically registered relationship.” Defendants insert limitations not cited in the claim, which is improper. *See Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001) (a court may not import functional limitations that are not recited in the claim). Accordingly, the function is “supporting the arm assembly from the base member” as recited in the claims.

The parties agree that both Figure 7 and Figure 19 depict possible structure. In Figure 7, the parties agree that the structure includes upright 20, circular recess 34, washer 36, and bolt 38. *See*



‘978 patent, Col. 3:29–40. The parties disagree on whether cylindrical recess 44, ball 46, and biasing spring 48 are necessary structure.

Figure 7 depicts a rotary joint “configured to perform two functions: to support the arm 18 for rotation about a generally horizontal axis 26 through the upright 20, and to define distinct vertical and horizontal arm positions.” *Id.* at 3:29–34. As stated above, the claimed function is supporting the arm assembly not defining “two distinct vertical and horizontal arm positions.” Importing “structural limitations from the written description that are unnecessary to perform the claimed function” is improper. *Wenger*, 239 F.3d at 1233. Although the specification teaches that the cylindrical recess 44, ball 46, and biasing spring 48 perform the second function of the rotary joint—locking the arm in vertical or horizontal positions—it never references that the three components support the arm. ‘978 patent, Col. 3:44–53. Accordingly, the necessary structure depicted in Figure 7 is upright 20, circular recess 34, washer 36, and bolt 38. *See* ‘978 patent, Col. 3:29–40.<sup>3</sup>

In Figure 19, the parties agree that upright 158, plug 208, and bolt 210 are included as structure. *See* ‘978 patent, Col. 7:43–54. The parties disagree on whether socket 206 is necessary. The specification is clear that socket 206 is necessary structure. The specification teaches “upright 158 has a socket 206 with a tapered square chamber aligned with a circular cylindrical chamber.” ‘978 patent, Col. 7:44–46. Socket 206 receives the plug 208, and the connector is attached using bolt 210, which inserts through a clearance hole in socket 206 and threads into plug 208. *Id.*, Col. 7:48–54. Thus, socket 206 is necessary structure as detailed in the written description.

Accordingly, the corresponding structure is either upright 20, circular recess 34, washer 36, and bolt 38 as depicted in Figure 7 or upright 158, socket 206, plug 208, and bolt 210 as depicted

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<sup>3</sup> For Claim 17, the parties agree that the structure also includes a “base” as the claim language requires. *See* ‘978 patent, Col. 12:8–9.

in Figure 19.<sup>4</sup>

Support surface

The Court construes “support surface” as “surface that supports the base.” As the intrinsic evidence does not provide a special meaning for “support surface,” its plain and ordinary meaning applies. *Enercon GmbH v. Int’l Trade Comm’n*, 151 F.3d 1376, 1384 (Fed. Cir. 1998).

MASS proposes the term means “work surface that supports the base.” MASS relies on a statement made during prosecution, “this [base] is used to support the arm assembly above a work surface.” MASS’s Opening Brief, Ex. C. MASS contends that it defined “support surface” as a “work surface.” However, neither the claim language nor specification mentions a “work surface.” The specification states that in one embodiment the base stands on a horizontal surface, but it does not refer to, nor require it to be, a “work surface.” ‘978 patent, Col. 3:21–22. Furthermore, MASS’s proposed construction is ambiguous and would be unhelpful to the fact-finder, as “work surface” is not defined.

Defendants propose “the support surface is an area for supporting a display system.” The specification describes the support surface as the horizontal surface on which the base stands. *See id.* Thus, it is more accurate to state that the support surface supports the base. Accordingly, one of ordinary skill in the art would understand that “support surface” means a “surface that supports the base.”

Mounting means for mounting the displays to the arm assembly

Claims 16 and 17 contain the term “mounting means.” The parties agree that the term is a means-plus-function limitation governed by 35 U.S.C. § 112 ¶ 6, and they agree that the function is

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<sup>4</sup> The parties agree that Claim 17 also includes a base as structure.

“mounting the displays to the arm assembly.”<sup>5</sup> See Dell’s Response Brief at 16. The parties also agree that Figures 8, 9, and 20 illustrate the structure but disagree on whether the structure includes certain components shown in those figures.

From Figures 8 and 9, the parties agree that the parts of the structure shown are a ball joint with a ball 56, shaft 58, and socket 60, plus equivalents.<sup>6</sup> See ‘978 patent, Col. 3:63–65. The parties disagree on whether the structure should include open-ended slots pairs 62, 64 (the “slots”) and cylindrical projection pairs 66, 68 (the “projections”).

From Figure 20, the parties agree that the parts of the structure shown are the ball joint having ball 172, shaft 174, socket 170 with flat surface 190, shell 184 with flat 192, plate 182, screws 186, plus equivalents.<sup>7</sup> See ‘978 patent, Col. 6:66–7:13.

The parties dispute whether the slots and projections<sup>8</sup> should be included as structure for the mounting means. Defendants contend that the slots and projections must be included as the embodiments always describe the ball joint as having projections and slots. While the preferred embodiments do include the projections and slots, the claim language and specification make clear that the projections and slots are preferred structure and not necessary.

For one embodiment, the specification states “the ball joint 126 is preferably configured with

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<sup>5</sup>As with “support means,” Defendants attempt to add limitations to the construction of the function. Inserting limitations not included in the claim is improper. See *Wenger*, 239 F.3d at 1233 (a court may not import functional limitations that are not recited in the claim). Accordingly, the Court does not adopt Defendants’ additional limitations.

<sup>6</sup>Although in some instances the specification describes the specific materials for the components, the parties agree that the specific materials need not be included in the structure.

<sup>7</sup>During the *Markman*, MASS originally stated that flat 190 should be excluded from the structure; however, during the same hearing, MASS later agreed to adopt Defendant’s proposed structure except as to the slots and projections. *Markman* Tr. p. 45, ll. 5–17. Even if MASS’s agreement was inadvertent, the specification describes flat 190 as necessary to prevent rotation of the socket 170; thus, it is necessary structure for the mounting means. See ‘978 patent, Col. 7:11–13.

<sup>8</sup>The slots are identified as numbers 62 and 64 in Figures 8 and 9 and as number 178 in Figure 20. The projections are identified as numbers 66 and 68 in Figures 8 and 9 and as number 180 in Figure 20.

pins and slots like the ball joint described above [Figures 8 and 9] to provide limiting tilting of the display 106, but such a configuration has not been illustrated in FIG. 13." '978 patent, Col. 5:57–60. The specification makes clear that the projections and slots are preferable, which denotes they are not required. '978 patent, Col. 5:57–58. The specification also teaches that these components are used to limit tilting of the display but makes no reference to them being used to mount the displays. *Id.* at Col. 5:58–60. Importing “structural limitations from the written description that are unnecessary to perform the claimed function” is improper. *Wenger*, 239 F.3d at 1233. The specification does not associate the projections and slots with performing the mounting means function. Accordingly, the projections and slots are not necessary structure.

The parties also disagree on whether the display 152 should be included. The specification teaches that the arm mounts to the back of the display. *See* '978 patent, Col. 7:9–11 (“The plate is then fastened with screws (such as the screw 188) to the back of the display 152.”); *see also, id.*, Col. 3:63–66 (“The mounting structure 50 includes a ball joint comprising a steel ball 56 formed on a steel shaft 58 supported from the arm 18 and a plastic socket 60 supported from the rear of display 16.”). The figures illustrate that the mounting means attaches to the rear of the display. *Id.*, Figures 1–6, 12–18, and 20. Defendants offer no evidence that would support the mounting means attaching to a location other than the rear of the display. The specification makes clear that the mounting means is limited to being attached to the back of the display. Accordingly, the structure includes “the rear of the display 152.”

Thus, the Court construes the function as “mounting the displays to the arm assembly.” The necessary structure is either “ball 56, shaft 58, and socket 60, plus equivalents” (Figures 8 and 9) or “ball 172, shaft 174, socket 170 with flat surface 190, shell 184 with flat 192, plate 182, screws 186, rear of the display 152, plus equivalents” (Figure 20).

Means for adjusting the angular orientation of each of the displays relative to the arm assembly

Claims 16 and 17 contain the phrase “means for adjusting.” The parties agree that the phrase is a means-plus-function limitation governed by 35 U.S.C. § 112, ¶ 6, and they agree that the function is “adjusting the angular orientation of each of the displays relative to the arm assembly.”<sup>9</sup> See Dell’s Response Brief at 23. At the *Markman*, the parties also agreed that the structure for this limitation is the same structure for “mounting means” discussed above. *Markman* Tr. p. 59, ll. 2–21.

Angled toward each other to a desired degree & Angles relative to each other to a desired degree

Defendants contend that the term “desired degree” is indefinite, or in the alternative, Defendants agree that the phrase does not need construction.

A claim is invalid under 35 U.S.C. § 112, ¶ 2 if it fails to particularly point out and distinctly claim the subject matter that the applicant regards as the invention. The party seeking to invalidate a claim as indefinite under 35 U.S.C. § 112, ¶ 2 must show by clear and convincing evidence that one skilled in the art would not understand the scope of the claim when read in light of the specification. *Intellectual Prop. Dev., Inc. v. UA-Columbia Cablevision of Westchester, Inc.*, 336 F.3d 1308, 1319 (Fed. Cir. 2003). “Close questions of indefiniteness in litigation involving issued patents are properly resolved in favor of the patentee.” *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2004).

Defendants fail to meet this high burden. Relying on *Datamize, LLC v. Plumtree Software, Inc.*, Defendants contend that the term “desired degree” depends solely on the user’s subjective opinion. See 417 F.3d 1342, 1350 (Fed. Cir. 2005). In *Datamize*, the court found that the term “aesthetically pleasing” was indefinite because it depended solely on a subjective opinion. *Id.* at

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<sup>9</sup> As with “support means” and “mounting means,” Defendants attempt to add limitations to the construction of the function. Adding limitations not included in the claim is improper. See *Wenger*, 239 F.3d at 1233 (a court may not import functional limitations that are not recited in the claim). Accordingly, the Court does not construe the function as including Defendants’ additional limitations.

1350. The court held that a definition cannot depend on an undefined standard. *Id.* at 1352–53. However, “desired degree” does not present such a situation.

“Desired degree” must be considered in the context of the claim language. *Datamize*, 417 F.3d at 1348. The term is used in Claims 16 and 17 and relates to how far the displays may be angled toward or relative to each other. *See* ‘978 patent, Col. 11:15–12:2 (“mounting means for mounting the displays to the arm assembly, the mounting means comprising means for adjusting the angular orientation of each of the displays relative to the arm assembly to thereby permit said displays to be angled toward each other to a desired degree”); 12:10–16 (“mounting means for mounting the displays to the arm assembly, the mounting means comprising means for adjusting the angular orientation of each of the displays relative to the arm assembly about a generally vertical axis to thereby permit said displays to be angled relative to each other to a desired degree). The context relates to adjusting or angling the displays, and this context helps to suggest a meaningful definition for desired degree.

It is important to note that using the word “desired” does not make the phrase per se indefinite. Although a term requires a user’s foreknowledge of certain facts, this does not make the term indefinite as long as the term can be objectively verified. *Datamize*, 417 F.3d at 1355–56 (finding that the term “‘desired,’ which requires foreknowledge and even intent on the part of the person practicing the invention” did not make the claim indefinite.)

The use of the term “desired degree” is objectively verifiable. Viewed in context of the claim, the phrase is directed at adjusting the displays to preferred viewing angles. Defendants focus on the actual range of the degrees claimed by the ‘978 patent, contending that one range of degrees might lead to infringement while another range may not. However, this argument is a nonstarter. Neither claim 16 nor 17 are directed at limiting the apparatus to a certain range of angling; rather the

claim language focuses on whether the apparatus allows the user to adjust the angular orientation of the display. One of ordinary skill in the art would understand that users' preferences would vary depending on the circumstances. For example, viewers' preferences may change depending on certain facts such as glare and seat height. Thus, the inventor is not required to limit the angle adjustment to a particular range of degrees. *See Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1575–76 (holding that the term “so dimensioned” was not indefinite as it was as specific as the facts allowed).

Although “desired degree” requires foreknowledge on the part of the user, the resulting adjustment is objectively verifiable. The term “degree” is used in a mathematical sense; thus, it is confined to a lower limit of zero degrees and an upper limit of 360 degrees. Due to the mathematical nature, the resulting adjustment can be verified. Therefore, the term is not indefinite, and the Court **DENIES** Defendants' Motion for Summary Judgment. Accordingly, the Court adopts the parties' view that no construction is necessary.

### U.S. Patent No. 5,673,170

#### *Pivotally connected to, Movably connected to, & Rotatably connected to*

The Court construes “pivotally connected to” to mean “a connection between two bodies allowing the bodies to change positions relative to one another around or about at least one point,” “movably connected to” to mean “a connection between two bodies allowing the bodies to change positions relative to one another,” and “rotatably connected to” to mean “a connection between two bodies allowing the movement of the bodies relative to one another around or about an axis.”

At the *Markman*, MASS stated that the only dispute remaining was the meaning of “connected to.”<sup>10</sup> MASS's proposed construction for “connected to” is “the secondary display is

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<sup>10</sup> At the *Markman*, MASS stated that the only dispute was how to define “connected to.” MASS stated it was “happy” with the way Dell defined the modifiers of “connected to.” *Markman Hr'g Tr.* 99:12–20.

supported from and directly hinged [or joined] to the primary display.”<sup>11</sup> MASS attempts to import limitations from certain embodiments, which is improper. *See Phillips*, 415 F.3d at 1323. MASS requires that the connection be a hinge and that the secondary display be supported by the primary display via the hinge. Neither of these limitations finds support in the intrinsic evidence.

The term “connected to” has its plain and ordinary meaning. Although MASS insists that this term be narrowly construed to mean “directly hinged,” neither the intrinsic nor extrinsic evidence supports such a narrow construction. While the specification does describe direct connections associated with certain embodiments, at least one embodiment implements an indirect connection. In Figure 4, the secondary display is neither directly hinged nor directly connected to the primary display, it is indirectly connected via two arms. *See* ‘170 patent, Fig. 4; Col. 4:14–20 (stating that the secondary display is pivotally connected to arms, which are connected to a hinge). Thus, “connected to” is not limited to a direct connection, and the plain and ordinary meaning applies, which is simply a “connection.”

As neither the specification nor prosecution history provides special definitions for the terms, the plain and ordinary meaning of “pivotally,” “movably,” and “rotatably” applies. *See Enercon*, 151 F.3d at 1384. Dell’s constructions advance how one skilled in the art would understand each of the three terms. MASS does not offer competing meanings for the terms; therefore, the Court adopts Dell’s constructions, which incorporate the terms ordinary and plain meanings.

#### Primary display

The Court adopts Dell’s construction and construes “primary display” to mean “a first display

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<sup>11</sup> MASS proposes that the phrase needing construction is “said secondary display being pivotally connected to said primary display.” However, as the Court construes both “primary” and “secondary” display below, there is no need to include those terms in the “pivotally connected to” construction. The same applies to “movably connected to” and “rotatably connected to.”



in a multi-display system.” The only dispute relates to the meaning of “primary.”

MASS proposed the term be construed as “the original, principal electronic display supported by the computer’s main chassis and supplying a visible display area of a given size.” MASS offers no intrinsic support for requiring the primary display to be the “original, principal” display. MASS ignores its own extrinsic evidence’s definition of “primary;” instead, it relies on the definition of “secondary” for support.<sup>12</sup> MASS also requires the display to be supported by the computer’s main chassis, which is an improper attempt to import a limitation from a preferred embodiment.<sup>13</sup> *See Philips*, 415 F.3d at 1323.

As with the “connected to” terms, neither the specification nor claim language provide a special meaning for “primary”; thus, its plain and ordinary meaning applies. *See Enercon*, 151 F.3d at 1384. As MASS’s own extrinsic evidence confirms, “primary” ordinarily means of “first rank” or “first in order of time.” *See* MASS’s Response Brief, Ex. H. Also, the inventor implicitly adopted Dell’s proposed ordinary meaning by using the term “first” and “primary” interchangeably to describe display. *See* ‘170 patent, Col. 6:50–51 (“system of claim 20 . . . adjacent said first display”). Dell’s proposed construction properly incorporates this ordinary meaning. Accordingly, the Court construes “primary” to mean “a first display in a multi-display system.”

#### Secondary display

The Court construes “secondary display” to mean “a second display in a multi-display system.”

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<sup>12</sup>MASS’s extrinsic support did not define “primary” as the “original.” *See* MASS’s Response Brief, Ex. H. Instead, MASS extracts the word from the definition of “secondary.” *See id.*

<sup>13</sup>In dependent claim 4 and 11, the claim language requires that the primary display rest on the surface of the computer chassis. No such requirements exist in claim 15, claim 20, or their dependent claims. Thus, under the guidance of claim differentiation doctrine, MASS’s attempt to read in this limitation is improper. *See Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368 (Fed. Cir. 2005).

MASS proposes that “secondary display” means “the subsidiary, subsequent flat panel electronic display that is not physically interchangeable with the primary display, and that supplements the display area of the primary display by increasing the total overall display area.” MASS attempts to limit the secondary display by stating it is “not physically interchangeable” with the primary display. However, the claim language contradicts such a limitation.

In claim 15, the secondary display is described as a “flat panel display.” ‘170 patent, Col. 6:19–29. Dependent claim 18 requires the primary display to be a “flat panel display.” *See id.*, Col. 6:38–39. The intrinsic evidence does not suggest that the primary flat panel display of claim 18 cannot be interchangeable with the secondary flat panel display of claim 15. Thus, MASS’s limitation is improper.

As with “primary display,” “secondary display” is not given a special meaning. In the claim language, the inventor uses the term “secondary” and “second” interchangeably. *See id.*, Col. 6:54–55 (referring to the system of claim 20, dependent claim 21 states “in said secondary position” when it previously refers to that position as the “second position”). Also, MASS’s extrinsic evidence defines “secondary” as “of second rank” or “of, relating to, or being the second order or stage in a series.” *See* MASS’s Response Brief, Ex. 4. Dell’s proposed construction encapsulates the plain and ordinary meaning of “secondary,” as shown by the claim language and MASS’s extrinsic evidence. Accordingly, the Court construes “secondary” as “a second display in a multi-display system.”

*First and second positions relative to said primary display*

The Court construes the phrase to mean “two different positions relative to the primary display.”

MASS proposes that the phrase means “a first position for viewing by a user while the

primary and secondary displays are in use, and a second position in which the secondary display is retracted to lie flat against the primary display when not in use.” MASS is attempting to narrow the independent claims by incorporating limitations from dependent claims.

“Claim differentiation . . . is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims.” *Wenger*, 239 F.3d at 1233. MASS’s proposed “second position” is a limitation found in claim 21, which depends on claim 20. *See* ‘170 patent, Col. 6:50–56 (“a top edge of said secondary display extends along a side of said primary display for compactness”). The only “meaningful difference” between independent claim 20 and dependent claim 21 are claim 21’s requirements for “first position” and “second position.”<sup>14</sup> *See id.* Thus, a strong presumption exists that claim 20 does not include claim 21’s position limitations. MASS has not overcome this presumption.

As discussed above, the first and second positions required in independent claims 15 and 20 are broader than the dependent claims. The written description describes the first and second positions as “during and before use.” *See id.*, Abstract; Col. 1:65–2:1. As no special meaning is ascribed to either term; their plain and ordinary meanings apply. *See Enercon*, 151 F.3d at 1384. Here, the descriptors “first” and “second” simply refer to two distinct positions, but those positions are not specifically defined. Accordingly, the Court construes “first and second position relative to the primary display” as “two different positions relative to the primary display.”

*Rotation of said secondary display between first and second positions relative to said primary display*

The Court construes the phrase as “movement of the secondary display about an axis between

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<sup>14</sup> A similar situation is presented with independent claim 15 and its dependent claim 16. There, claim 16 requires the secondary display to be substantially orthogonal as opposed to lying flat against the primary display. *See* ‘170 patent, Col. 6:18–36.

a first and second position relative to the primary display.” As the Court previously construed most of the terms in this phrase, the remaining disputed term is “rotation.”

MASS proposes the phrase means “adjusting the secondary display from a position viewed by a user while the two displays are in use to a position in which the secondary display is retracted to lie flat against the primary display when not in use.” MASS’s proposed construction reads out the “rotation” limitation and replaces it with a broader term “adjusting.”

Dell’s construction encapsulates rotation’s plain and ordinary meaning. Dell provides several dictionary definitions that support Dell’s construction of the term. Each of the dictionaries define rotation as “to turn about an axis or center.” *See* Dell’s Reply Brief, Exs. A–C. Dell’s construction, “movement of the secondary display about an axis” is consistent with the term’s plain and ordinary meaning. Accordingly, the Court construes the phrase as “movement of the secondary display about an axis between a first and second position relative to the primary display.”

*Enabling movement between first and second positions relative to said primary display*

The Court construes the phrase as “allowing a secondary display to move between a first and second position relative to said primary display.” As with “rotation of . . . to said primary display,” the Court previously construed all the terms except for “enabling movement.”

MASS and Dell agree that the terms’ plain and ordinary meanings apply. Both parties agree that the term “movement” should be construed as “to move.” MASS proposes “enabling” be construed as “permitting,” and Dell proposes it be construed as “allowing.” Both parties’ constructions are commonly known synonyms. Accordingly, the Court construes the phrase as “allowing a secondary display to move between a first and second position relative to said primary display.”

Primary display controller & Secondary display controller

The Court construes “primary display controller” to mean “circuitry for interfacing a primary display with a computer” and “secondary display controller” to mean “circuitry for interfacing a secondary display with a computer.”

At the hearing, both parties agreed that “display controller” should be construed as “circuitry for interfacing a display with a computer.” The only dispute is over the use of the word “first” versus “primary” and “second” versus “secondary” to modify “display.” As the Court already construed both “primary display” and “secondary display,” it is unnecessary to re-construe the terms here. Therefore, the Court adopts the parties agreed language and construes “primary display controller” as “circuitry for interfacing a primary display with a computer” and “secondary display controller” as “circuitry for interfacing a secondary display with a computer.”

**CONCLUSION**

For the foregoing reasons, the Court interprets the claim language in this case in the manner set forth above. For ease of reference, the Court’s claim interpretations are set forth in Appendix B. The claims with the disputed terms in bold are set forth in Appendix A.

**So ORDERED and SIGNED this 13th day of March, 2008.**

A handwritten signature in black ink, appearing to read 'Leonard Davis', written over a horizontal line.

**LEONARD DAVIS**  
**UNITED STATES DISTRICT JUDGE**

**APPENDIX A**  
**U.S. Patent No. RE 36,978**

16. A display system comprising:

a **base member**;

a pair of **electronic displays**;

**positioning means for positioning the displays**, the positioning means comprising:

(a) an **arm assembly** for supporting the displays;

(b) **support means for supporting the arm assembly** from the base member; and

(c) **mounting means for mounting the displays to the arm assembly**, the mounting means comprising **means for adjusting the angular orientation of each of the displays relative to the arm assembly** to thereby permit said displays to be **angled toward each other to a desired degree**.

17. A display system comprising:

a pair of **electronic displays**;

**positioning means for positioning the displays**, the positioning means comprising:

(a) an **arm assembly** for supporting the displays;

(b) **support means having a base for supporting the arm assembly** above a support surface; and

(c) **mounting means for mounting the displays to the arm assembly**, the mounting means comprising **means for adjusting the angular orientation of each of the displays relative to the arm assembly** about a generally vertical axis to thereby permit said displays to be **angled relative to each other to a desired degree**.

**U.S. Patent No. 5,673,170**

15. A computer incorporating a secondary display system, the computer comprising:

a **main chassis**;

a **primary display interfaced** to said main chassis via a **primary display controller**;

a **secondary display** comprising a flat panel display **interfaced** to said main chassis via a **secondary display controller**, said **secondary display** being **pivotally connected** to said **primary display** for enabling rotation of said **secondary display** between first and second positions relative to said **primary display**.

18. The computer of claim 15 wherein said **primary display** is a flat panel display.

19. The computer of claim 15 wherein said **secondary display** is a liquid crystal display module.

20. A display system for a computer, the system comprising:

a **primary display interfaceable** to a **main chassis** of a computer;

a **secondary display interfaceable** to said main chassis and **movably connected** to said **primary display** for enabling movement between first and second positions relative to said **primary display**.

22. The system of claim 20 wherein said **secondary display** is **rotatably connected** to said **primary display**.

**APPENDIX B**

<b>U.S. Patent No. RE 36,978</b>	
<b>Disputed Claim Terms</b>	<b>Court's Construction</b>
base member (Claim 16)	the lowermost portion of the system that supports the arm assembly above a surface
base (Claim 17)	[AGREED] same meaning as "base member"
electronic displays (Claims 16 and 17)	[AGREED] electronic devices that represent information in visual form
positioning means for positioning displays (Claims 16 and 17)	apparatus used to position the displays
arm assembly (Claims 16 and 17)	a structure having one or more constituent parts connected to and projecting from the support means
support means for supporting the arm assembly from the base member (Claim 16)	<b>Function:</b> supporting the arm assembly from the base member <b>Structure:</b> upright 20, circular recess 34, washer 36, and bolt 38 (Figure 7) OR upright 158, socket 206, plug 208, and bolt 210 (Figure 19)
support means having a base for supporting the arm assembly above a support surface (Claim 17)	[AGREED] <b>Function:</b> Same as "support means for supporting the arm assembly from the base member" [AGREED] <b>Structure:</b> Same as "support means for supporting the arm assembly from the base member"
support surface (Claim 17)	surface that supports the base
mounting means for mounting the displays to the arm assembly (Claims 16 and 17)	<b>Function:</b> mounting the displays to the arm assembly <b>Structure:</b> ball 56, shaft 58, and socket 60, plus equivalents (Figures 8 and 9). OR ball 172, shaft 174, socket 170 with flat surface 190, shell 184 with flat 192, plate 182, screws 186, rear of the display 152, plus equivalents.
means for adjusting the angular orientation of each of the displays relative to the arm assembly (Claims 16 and 17)	[AGREED] <b>Function:</b> adjusting the angular orientation of each of the displays relative to the arm assembly [AGREED] <b>Structure:</b> Same as "mounting means for mounting the displays to the arm assembly"

U.S. Patent No. RE 36,978	
Disputed Claim Terms	Court's Construction
angled toward each other to a desired degree  (Claim 16)	[AGREED] No construction
angles relative to each other to a desired degree  (Claim 17)	[AGREED] No construction



U.S. Patent No. 5,673,170	
Disputed Claim Terms	Court's Construction
pivotally connected to  (Claim 15)	a connection between two bodies allowing the bodies to change positions relative to one another around or about at least one point
movably connected to  (Claim 20)	a connection between two bodies allowing the bodies to change positions relative to one another
rotatably connected to  (Claim 22)	a connection between two bodies allowing the movement of the bodies relative to one another around or about an axis
primary display  (Claims 15, 18, 20 and 22)	a first display in a multi-display system
secondary display  (Claims 15, 19, 20, and 22)	a second display in a multi-display system
first and second positions relative to said primary display  (Claim 15 and 20)	two different positions relative to the primary display
rotation of said secondary display between first and second positions relative to said primary display  (Claim 15)	movement of the secondary display about an axis between a first and second position relative to the primary display.
enabling movement between first and second positions relative to said primary display  (Claim 20)	allowing a secondary display to move between a first and second position relative to said primary display
primary display controller  (Claim 15)	circuitry for interfacing a primary display with a computer
secondary display controller  (Claim 15)	circuitry for interfacing a secondary display with a computer
interfaced  (Claim 15)	[AGREED] "The establishment of a data communication connection"
interfaceable  (Claim 20)	[AGREED] "Able to be connected to establish a data communication connection"
main chassis  (Claims 15 and 20)	[AGREED] "The enclosure that houses the electronics of the computer"